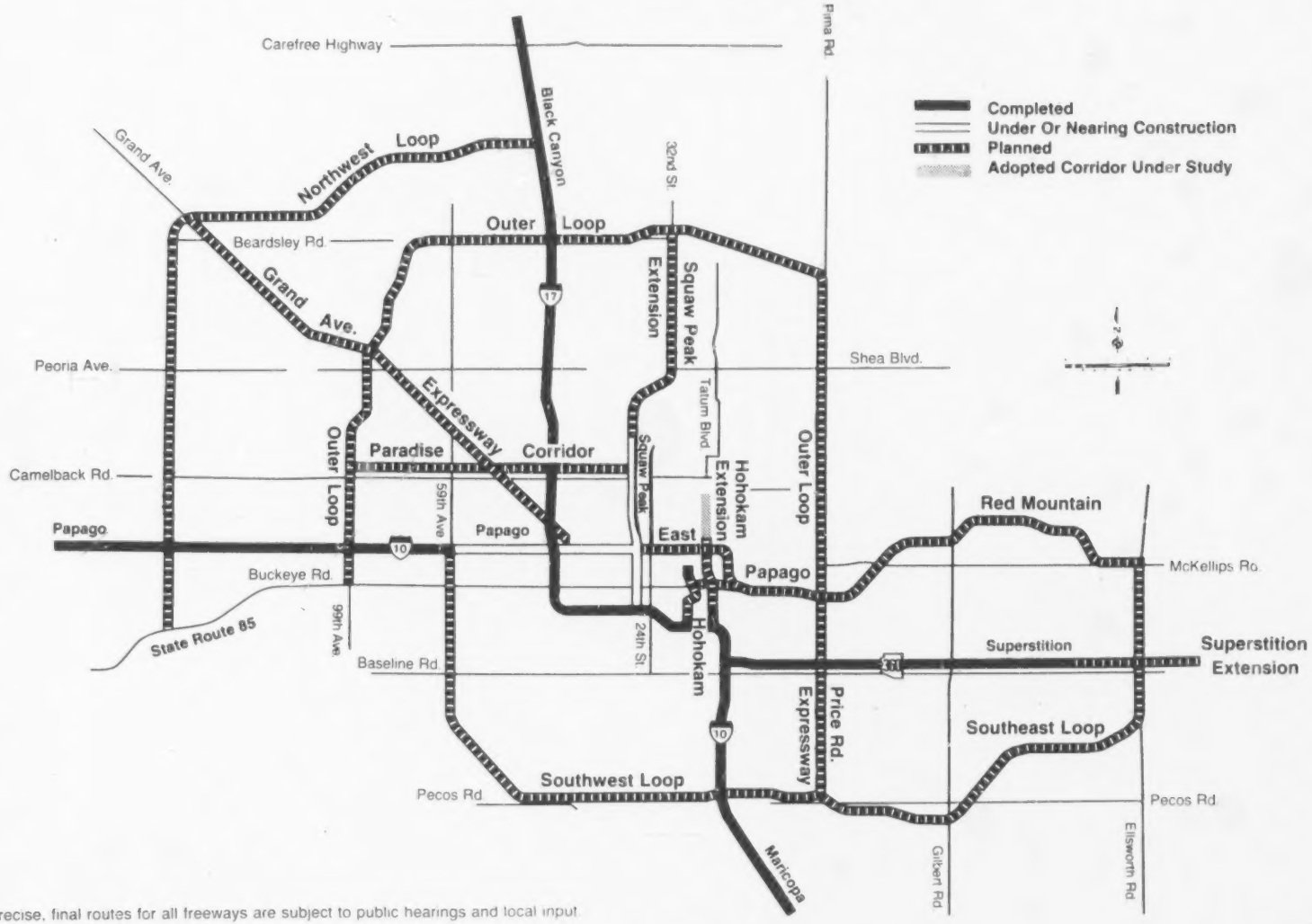
FIGURE I
MARICOPA COUNTY FREEWAY/EXPRESSWAY PLAN*



*The precise, final routes for all freeways are subject to public hearings and local input.

Source: Maricopa Association of Governments (MAG), Transportation Planning Department, plan adopted July 24, 1985.

Sierra Club, the Arizona Highway Users Conference and the Committee for the Proposed Monorail Transportation System for the Metropolitan Area of Maricopa County of Arizona. Several other organizations advocated alternative forms of transportation and special transit services. The League of Women Voters recommended funding for a variety of modes: walking, bicycling, rapid transit and light rail. The Arizona Congress for Action, the Alpha-Omega Association and the American Red Cross spoke in favor of funding special transportation for groups such as the elderly, the handicapped, low-income families and needy children.

The Joint Committee meetings were promptly followed by introduction of identical bills in the Senate (S.B. 1178) and House of Representatives (H.B. 2306). These bills incorporated comments made before the Joint Committee, in an effort to begin constructive discussion on transportation finance topics. After H.B. 2306 passed the House (amended), it was amended significantly in the Senate. The result was the emergence of two very distinct versions of the same bill.

When the Senate and House failed to agree on either version, a 14-member Free Joint Conference Committee was formed to reconcile the differences and produce an acceptable piece of legislation. Eventually, the committee decided to combine elements from each version and add provisions to form a new bill. This legislation, in the form of a conference committee report on H.B. 2306, passed both houses of the Legislature on May 3, 1985.

ALLOWED AND ANTICIPATED FUNDING USES

The permitted uses of transportation funding provided by H.B. 2306 vary by jurisdiction and funding source. Given these limitations, anticipated uses of these monies are outlined in the following sections.

Maricopa County Projects

According to the Maricopa Association of Governments' (MAG) Transportation Planning Department, the Maricopa County controlled-access routes to be built with new sales tax revenues over the next 20 years would be at least the following:

- Outer Loop (55 miles; six lanes, except four lanes through the Indian Reservation) — Extends north from Buckeye Road along 99th Avenue, curves northeast to Beardsley Road, then heads south at Pima Road to the Superstition Freeway.
- East Papago (nine miles; six lanes) — Links the Papago Freeway and the Squaw Peak Parkway on the west with the Outer Loop and the Red Mountain Freeway on the east.
- Superstition Extension (six miles; four lanes) — Extends the Superstition Freeway east to the Maricopa/Pinal County boundary.
- Red Mountain Freeway (17 miles; six lanes) — An east-west route through northern Tempe and Mesa.
- Price Road Expressway (6.5 miles; six lanes) — Extends the eastern leg of the Outer Loop south from the Superstition Freeway to approximately Pecos Road.
- Southeast Loop Freeway (28 miles; six lanes) — Connects the Red Mountain Freeway to the Price Road Expressway and the Southwest Loop.
- Southwest Loop Freeway (22 miles; six lanes) — Runs south from the Papago Freeway along 59th Avenue and curves southeast, then east to join with the Price Road Expressway and the Southeast Loop.
- Hohokam Freeway (four miles; six lanes) — Connects the Maricopa Freeway with the East Papago and improves access to Phoenix Sky Harbor International Airport.
- Squaw Peak Extension (10 miles; six lanes) — Connects the Squaw Peak Parkway and the northern leg of the Outer Loop.
- Paradise Corridor (13 miles; six lanes) — An east-west route connecting the Squaw Peak Parkway and the western leg of the Outer Loop.

These routes are shown on the map in Figure I. The order in which they would be constructed is still uncertain; MAG will be responsible for establishing priorities.

It is likely that a portion of the sales tax monies also would be used to convert segments of Grand Avenue into an expressway as well as to acquire right-of-way for the Cotton Lane/Northwest Loop Corridor on the far west side of the metropolitan area.
In addition, a corridor known as the Hohokam Extension (a two-mile northward extension of the Hohokam Freeway) is under study by MAG but would not be eligible for funding at the time of the election. In order for a controlled-access project to become eligible for the new sales tax monies, it must be placed on MAG's Regional Transportation Plan and be accepted into the state highway system by the State Transportation Board.

Pima County Projects

If Pima County voters approve a sales tax increase, the types of project eligible for the newly generated monies would include controlled-access highways and grade separations, as allowed in Maricopa County, but they would also include arterial streets and highways. This distinction is important because, with the exception of the Aviation Highway[3] controlled-access project, the highest priority of the Pima County region now is expansion of city street and county road systems. This emphasis resulted from the November 1984 voter rejection of a $15-million bond issue to fund right-of-way acquisition in northern Tucson's Rillito Corridor. Currently, that corridor is destined for some type of alternative to a controlled-access route.

To be eligible for sales tax monies, a controlled-access project must be in the Pima Association of Governments' (PAG) Regional Transportation Plan and on the state highway system. Other types of eligible projects must, at a minimum, be on the PAG plan.

Rural Counties

Counties other than Maricopa and Pima also have the authority to call an election to vote on a sales tax increase up to one-half percent. Each County Board of Supervisors is charged with determining, before the election, the allocation of anticipated sales tax monies between incorporated and unincorporated areas of the county. In this way, voters will have knowledge of where new sales tax monies would be distributed, if approved. These monies may be used for any street or highway purpose.

State Highway Fund, Counties, Cities and Towns

Monies from the 3-cent-per-gallon fuel tax increase will be distributed to the State Highway Fund, counties,

[3]The Aviation Highway runs from the northwest to the southeast and links I-10 to central and eastern Tucson.

cities and towns (Table 1). New revenue distributed to the highway fund throughout Arizona, with routes determined through the five-year Transportation Facilities Construction Planning process. Recommendations for construction or reconstruction of specific routes are made to the State Transportation Board by an ADOT committee known as the priority planning committee.

The position of ADOT is that several state highways need major development over the next few years to overcome serious deficiencies. With limited additional funding, such as that provided by H.B. 2306, the department has felt that it would recommend the routes listed in Table 2 as the most critical priorities. Additionally, up to $5 million per year in highway fund monies may be spent for entry roads or roads within state parks.

Another portion of the new fuel tax monies will be distributed to counties, cities and towns and must be expended for the streets and highways prescribed by each. This spending restriction is in line with the current constitutional spending restriction that limits use of certain highway-user revenues to "street and highway" purposes.

TABLE 2
STATE HIGHWAYS WITH HIGHEST PRIORITY FOR DEVELOPMENT

Route	Location	Estimated Cost (In Millions)
SR-360	Maricopa/Pinal County line to U.S. 60	$ 16
SR-69	Prescott to Cordes Junction	50
SR-87	McDowell Road to Payson	50
SR-93	Kingman to Detrital	60
SR-85	Junction I-8 to I-10	42
US-93	Bagdad Junction to I-40	37
SR-95	Needles Bridge to Bullhead City	31
SR-260	Payson to Woods Canyon Lake	51
Total		$337

Source: Arizona Department of Transportation, 1985.

CONCLUSION

In his Opening Message to the 37th Legislature, Governor Babbitt stated his opinion that the driving public is capable and willing to pay for expansion of the transportation system. A survey of Phoenix residents conducted in April 1985 by the Behavior Research Center for the City of Phoenix supported the governor's perception. Sixty-seven percent of the survey respondents said they would be willing to pay additional taxes for more north/south freeways, and 71 percent said they would pay additional taxes for more east/west freeways. Another survey, conducted in August 1985 by Arizona Field Research for *The Arizona Republic/ The Phoenix Gazette*, revealed that 69 percent of Maricopa County residents favored a half-cent increase in the state's sales tax to fund transportation improvements. Another 20 percent opposed the increase, and 11 percent were undecided.

The governor's perceptions and the survey results will be confirmed or rejected October 8 by Maricopa County voters. Elections in several other counties are expected to follow. The people of Arizona will thereby assume the lead role in establishing the level of transportation improvements over the next 20 years.

— Clemenc Ligocki

Mr. Ligocki is Legislative Research Analyst for the Transportation Committee of the Arizona State Senate.

"Forecast," from page 1

means to reduce the deficit, but as a weak measure likely only to keep the deficit from rising further. Thus, response in the financial and stock markets, and generally in the business community, has been minimal.

A huge federal budget deficit, the primary cause of the growth recession, will therefore continue to limit the ability of the economy to grow. The deficit creates such a need for funds that interest rates remain high on an inflation-adjusted basis, and the dollar stays strong in relation to other currencies. A flood of foreign imports and investment results, harming domestic industries.

While both interest rates and the dollar declined during the summer, the drop-off was mild and due only to the weak economy. Since the Federal Reserve cannot directly act on the root cause of the problem – the budget deficit – they have only partial control over the course of the economy. In contrast to the impact of the Fed's credit loosening last fall, further relaxation in May has yet to have the stimulative effect expected by most analysts. Or, in a pessimistic vein, perhaps the economy would be even weaker if this action had not been taken.

The absence of signs that economic growth will either improve or deteriorate into a recession prior to early 1986 does not imply that the GNP of any given quarter will not decline, nor that it will expand by more than 3 percent. Sharp swings in components of the GNP can occur as long as the economy's severe imbalances – such as the budget and trade deficits – persist. Thus, an apparent improvement or deterioration in the economy, as measured by GNP, should be discounted unless sufficient corroborating evidence is provided.

1985-86 ARIZONA FORECAST

While the Arizona economy has slowed in response to these national conditions, it continues to expand a a rate in excess of its long-term average of 5.5 percent. This slow-growth pattern seems unlikely to persist through 1986, a length of more than two years, but it remains the "control" forecast because those factors that could affect the course of the economy (such as further Congressional or Federal Reserve actions) continue to be indefinite. As long as such actions are not taken, however, it remains difficult to present a convincing case for any other course but ongoing, slower growth.

On the optimistic side, the decline

in interest rates and the dollar is a positive development. These decreases, however, are due primarily to the weak economy. Should they spark economic growth, an increase in both interest rates and the dollar seems likely to follow, limiting any improvement. A chance exists, however, that economic growth might stabilize at a higher level than the current growth recession.

Pessimistically, among the traditional harbingers of a recession, only consumer spending and consumer debt pose a concern. However, nontraditional problems exist, such as the weakness in domestic productive industries, which may eventually lead to a general recession despite the absence of inflation, rising interest rates and high factory utilization.

Four possible economic outlooks for the remainder of 1985 and 1986 are presented below. The quarterly forecasts made in late August by the panel of Robert Eggert's *Blue Chip Financial Forecasts* can be categorized into these four alternatives. They differ from those presented in the last quarterly forecast largely because of Congressional action on the deficit. The possibility of further political actions, such as tax reform, protectionism, and lack of adherence to the deficit package, could significantly alter the likelihood of these scenarios.

Base Forecast: More of the Same

This "control" forecast remains similar to that provided in previous quarterly outlooks, although the rate of growth of most economic indicators has been scaled down (see the Arizona forecast in Table 1 and the Maricopa County forecast in Table 2). A similar forecast for the nation was made by more than one-third of the *Blue Chip* panel.

The forecast of real growth in the Gross State Product (GSP) has been lowered for both 1985 and 1986 (see Figure I). Earlier forecasts assumed an erratic pattern, in which quarters of more energetic expansion would be realized. Such surges of economic growth now seem unlikely, though some inconsistency should persist. This generally slower growth expectation has also caused a downward revision to personal income predictions for 1985 and 1986, as well as to retail sales estimates for 1986. Retail sales continue to prop up the economy in 1985, in part due to heavy in-migration; however, consumer spending should moderate soon, given factors such as high consumer debt.

Persistent rises in the unemployment rate and slow job formation paint a gloomier employment picture than in previous forecasts. Thus, the predicted unemployment rate for both 1985 and 1986 has been bumped up, though it is expected to stabilize in 1986 as population gains slow. The migration of people to Arizona always lags changes in employment and the general economy. A growing unemployment rate during 1985, to nearly the national average, should be sufficient to retard migration by this winter. With construction employment dipping during the summer, only the services sector and the smaller finance, insurance and real estate sector show much employment gain.

The inflation rate, measured by the Metropolitan Phoenix Consumer Price Index, remains stable at approximately 6 percent. Although higher than the national rate, due to the demand created by an increasing population and healthy economy, the local inflation rate is not likely to accelerate until the dollar drops sharply (see Figure II).

While construction so far in 1985 has exceeded expectations, weaknesses are developing, particularly in the number of permits issued for apartment units. Thus, while the construction totals for 1985 have been adjusted upward because of permits issued during the first half of the year, the forecast for the remainder of 1985 and 1986 is largely unchanged. High vacancy rates and the sluggish economy should slow commercial construction in particular. Further, changes in the tax laws – which seem likely – could sharply brake apartment and office construction.

Optimistic Forecast: An End to the Growth Recession

Nearly one-fourth of the *Blue Chip* panel foresee a recovery to 3 percent or more GNP growth during the latter half of 1985, continuing throughout 1986. Panel members made their prediction with knowledge of July's mediocre economic results.

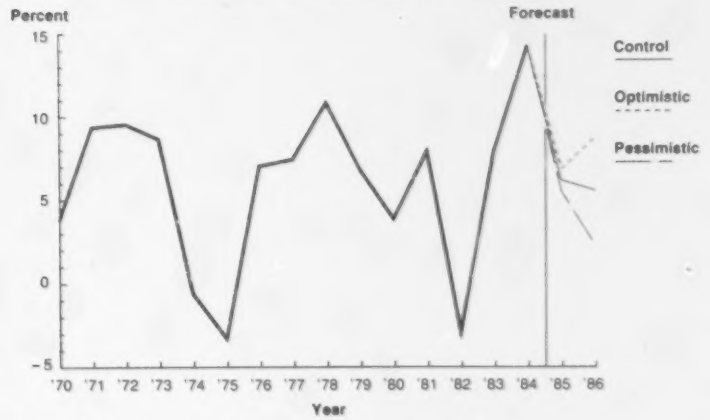
The possible causes of such a recovery remain unclear. This scenario must assume that previous and/or additional actions by the Federal Reserve will soon stimulate the economy. Even if this would occur, it is unlikely that such actions could prop the economy throughout 1986 as well. Thus, the scenario must also assume that continued weakening of the dollar will cause rapid improvement in the trade deficit, prompting greater demand for domestic products.

Although the economy has the capacity to resume more rapid expansion, this scenario seems to be based more on wishful thinking than on economic reality. Its occurrence should benefit all sectors of the Arizona economy (Tables 1 and 2 detail the alternative scenarios for the first time) but should prompt a conventional recession both locally and nationally during 1987.

Pessimistic Forecast: Growth Recession Erodes into Recession

Only 10 percent of the *Blue Chip*

FIGURE I
ARIZONA GROSS STATE PRODUCT



Source: Bureau of Business and Economic Research, College of Business, Arizona State University

TABLE 1
1985-86 ECONOMIC FORECAST: ARIZONA

	Actual	Forecast Scenarios					
		Control		*Optimistic*		*Pessimistic*	
	1984	1985	1986	1985	1986	1985	1986
Gross State Product							
Millions of 1972 Dollars	20,229	21,475	22,675	21,625	23,525	21,350	21,850
Percent Change	14.3	6.2	5.6	6.9	8.8	5.5	2.3
Personal Income							
Millions of Current Dollars	36,151	39,625	43,350	39,825	45,150	39,450	42,525
Percent Change	13.3	9.6	9.4	10.2	13.4	9.1	7.8
Retail Sales							
Millions of Current Dollars	19,399	21,350	23,175	21,400	24,075	21,250	22,525
Percent Change	11.6	10.0	8.5	10.3	12.5	9.5	6.0
Unemployment Rate							
Percent	5.0	6.5	7.2	6.3	6.4	6.6	8.2
Wage and Salary Employment							
Number in Thousands	1,181	1,255	1,310	1,260	1,350	1,250	1,295
Percent Change	9.6	6.3	4.4	6.7	7.1	5.8	3.6
Population							
Number in Thousands	3,095[E]	3,210	3,315	3,210	3,335	3,210	3,300
Percent Change	4.2	3.7	3.3	3.7	3.9	3.7	2.8
New Single Family Housing Units Permitted							
Number	30,845	32,950	27,700	34,800	34,500	30,750	20,600
Percent Change	– 0.3	6.8	– 16.0	12.8	– 0.9	– 0.3	– 33.0
New Multifamily Housing Units Permitted*							
Number	47,539	30,000	13,300	34,700	24,000	26,700	10,700
Percent Change	43.0	– 36.9	– 55.7	– 27.0	– 30.8	– 43.8	– 60.0
Value of Building Permits							
Millions of Current Dollars	5,262	5,250	4,300	5,600	5,300	4,900	3,400
Percent Change	44.0	– 0.2	– 18.1	6.4	– 5.4	– 6.9	– 30.6

E = Estimated

*Apartment complexes of three or more units

Source: Bureau of Business and Economic Research, College of Business, Arizona State University.

panel support the possibility of a recession starting prior to the second half of 1986. If one trusts the leading indicators, which show no sign of a recession, it is difficult to make a case for one prior to next summer. However, the chances of a recession later are much greater.

The rationale behind a recession beginning in mid or late 1986 is that the unbalanced economy cannot last forever. Weakness in the productive industries may eventually cause consumer confidence to decline. Combined with high debt levels, consumer spending slackens. At the same time, the construction industry slumps because of overbuilding. The result is a gradual decline into a relatively mild recession. The impact on Arizona is shown in Tables 1 and 2.

Such an economic downturn should cause interest rates and the dollar to decline, setting the stage for a robust recovery. However, a recession would aggravate the federal budget deficit. Without further cuts, highly unlikely during a recession or near an election, the massive deficit could cut short the recovery, resulting in a repeat of current economic conditions.

Variation on the Base Forecast: Short Recovery, Another Slowdown

Nearly one-third of the *Blue Chip* panel expect an improvement in economic growth during the second half of 1985. However, they see stronger growth persisting for just two to four quarters, followed by a return to the growth recession. A minority foresee the subsequent slide reaching a recession by third quarter, 1986.

This alternative is much more feasible than the optimistic scenario in that it recognizes the underlying problems that preclude a robust, lengthy recovery. However, it still represents an optimism without basis in fact, which has afflicted a number of forecasters since the first slow quarter of economic growth in 1984.

A detailed forecast for Arizona has not been prepared for this scenario. Conditions should be slightly better than those of the control forecast.

SUMMARY

No end to the growth recession is in sight, raising the possibility of this episode becoming the longest period of slow growth since at least World War II. Having begun during third quarter, 1984, its length has nearly reached the prior record of five quarters, set during 1966-67. With no end to the slow growth period in sight, this economic expansion seems likely this fall to surpass the average peacetime length of 34 months.

In Arizona, the growth recession represents a mixture of good and bad news. On the negative side, slow growth has contributed to the rising unemployment rate. The unevenness of the economy – in contrast to slow growth by all industries – means that some companies are suffering to

TABLE 2
1985-86 ECONOMIC FORECAST: MARICOPA COUNTY

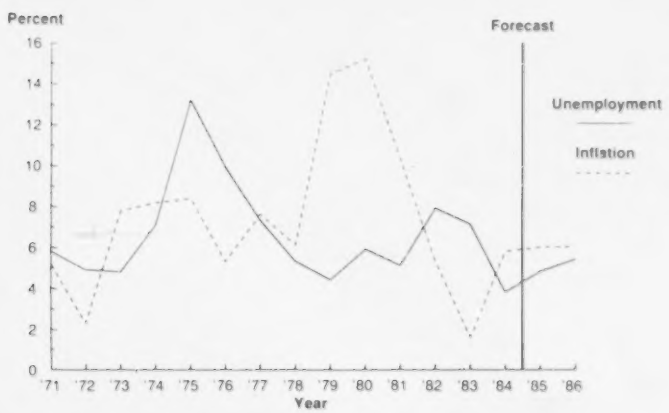
	Actual	Forecast Scenarios					
		Control		*Optimistic*		*Pessimistic*	
	1984	1985	1986	1985	1986	1985	1986
Consumer Price Index							
Percent Change	5.8	6.0	6.0	6.0	6.3	6.0	5.7
Retail Sales							
Millions of Current Dollars	12,434	13,725	15,000	13,825	15,675	13,675	14,550
Percent Change	12.6	10.4	9.3	11.2	13.4	10.0	6.4
Unemployment Rate							
Percent	3.8	4.8	5.4	4.6	4.7	5.0	6.8
Wage and Salary Employment							
Number in Thousands	770	825	865	830	895	815	845
Percent Change	11.1	7.1	4.8	7.8	7.8	5.8	3.7
Population							
Number in Thousands	1,740[E]	1,810	1,875	1,810	1,890	1,810	1,865
Percent Change	4.9	4.0	3.6	4.0	4.4	4.0	3.0
New Single Family Housing Units Permitted							
Number	20,774	21,750	18,000	24,000	24,000	20,000	13,000
Percent Change	−0.9	4.7	−17.5	15.5	0.0	−0.9	−35.0
New Multifamily Housing Units Permitted*							
Number	36,817	22,500	10,000	26,000	18,000	20,000	8,000
Percent Change	53.8	−38.9	−55.6	−29.4	−30.8	−45.7	−60.0
Value of Building Permits							
Millions of Current Dollars	3,811	3,700	3,000	4,225	4,000	3,375	2,300
Percent Change	54.3	−2.9	−18.9	10.9	−5.3	−11.4	−31.9

E = Estimated

*Apartment complexes of three or more units

Source: Bureau of Business and Economic Research, College of Business, Arizona State University.

FIGURE II
UNEMPLOYMENT AND INFLATION RATES
Maricopa County



Source: Bureau of Business and Economic Research, College of Business, Arizona State University.

nearly the extent of a true recession.

On the positive side, the moderation should help hold inflation in check. Further, for most individuals, the slowdown has had virtually no effect. They still have jobs and are relatively mobile in changing jobs; their incomes have continued to gain in excess of the inflation rate.

Thus, except for an isolated storm, the economic skies over Arizona remain sunny. However, a massive dark cloud – the federal budget deficit – continues to grow on the horizon.

— Tom R. Rex
Research Manager

A Note on the Forecasts

Most of the economic indicators forecast in Tables 1 and 2 are on an annual average basis. (The exceptions are retail sales and the three series related to building permits – these forecasts represent totals for the year.) An annual average can be misleading. For example, the forecast for the 1985 Arizona unemployment rate is 6.5 percent – less than the latest (July) rate of 6.7 percent. This lower forecast does not imply that the unemployment rate will decline during the remainder of 1985. Rather, the annual average unemployment rate is expected to be only 6.5 percent because the rate was so low early in 1985

Unfortunately, no better measure exists. If forecasts were made on the basis of year-end values, these might be equally misleading as to the course of events during the year. Thus, the reader is cautioned not to look exclusively at annual numeric forecasts.

Arizona Construction Activity Up Slightly in Second Quarter

At mid-year, the outlook for the remainder of 1985 is a mixture of promise and concern for the Arizona construction industry. The promise is lower interest rates that could further stimulate residential activity. The sluggish economy, however, could affect commercial and industrial activity.

As shown in the accompanying Tables 1-3, total construction activity in Arizona increased slightly during the second quarter, from $1.4 billion (27,165 permits) in the first quarter to $1.5 billion (29,983 permits). Maricopa County continued to dominate the construction industry, with 73 percent of the recorded dollar value ($1.1 billion), followed by Pima County, with 14 percent of the recorded activity ($203 million). Within the counties, the city of Phoenix reported the greatest dollar value of building permits (see Table 4).

SECTORAL ACTIVITY

Residential

Construction and sales activity in the single family sector are very sensitive to the level of interest rates, which declined throughout the quarter (see Figure I). For example, interest rates for 30-year, fixed-rate, conventional mortgages declined appreciably, from a range of 13 to 13.5 percent to 11.5 to 12 percent. However, the level of single family construction activity increased only slightly. In Maricopa County, the number of single family permits rose to 6,332, basically unchanged from the 6,277 permits recorded in the first quarter.

Although this quarterly total is the second highest of the 1980s, the response to lower interest rates was somewhat less than expected. During the first two quarters of 1983, interest rates exhibited a similar pattern, but permit activity increased more than 2,000 housing units. The current response of both homebuyers and homebuilders appears to be one of caution as they try to determine if rates will come down further or at least remain at current levels. Because the improved financial market has come relatively late in the economic cycle, potential homebuyers could be concerned about the economy's future strength and direction. Basically, there appears to be a delayed response to the much improved mortgage market that developed during the second quarter.

Commercial

In line with long-time expectations, the multifamily sector continued its decline. Multifamily activity in Maricopa County decreased from 8,410 housing units authorized in the first quarter to 5,955 housing units authorized in the second quarter. A similar pattern occurred in Pima County, where multifamily activity moved from 2,087 units in the initial quarter of 1985 to 1,422 units. The decline in activity was expected, due to concerns about overbuilding, signs of increasing vacancies, and an economic slowdown that could affect population growth.

Because most development concerns focus on the metropolitan counties, the non-metropolitan counties are frequently overlooked until the metropolitan markets are satisfied. While multifamily activity declined in the metropolitan counties, it increased in the non-metropolitan counties, from 773 housing units recorded in the first quarter, to 1,163 housing units. Activity was especially evident in the growing areas of Casa Grande (306 units), Sierra Vista (536 units), and Flagstaff (382 units).

The office building sector in Maricopa County established a record level of activity, with the issuance of 128 permits, valued at $168 million. Construction activity was very strong in Scottsdale (38 permits at $20 million), Phoenix (55 permits at $76 million),

TABLE 1
KEY SECTOR CONSTRUCTION ACTIVITY
(Second Quarter 1985, First Quarter 1985, and Second Quarter 1984)

			COMMERCIAL							
	SINGLE FAMILY		APARTMENTS[a]		OFFICE BUILDINGS[b]		RETAIL STORES[c]		INDUSTRIAL	
Maricopa County	Number of Permits	Dollar Value	Number of Permits	Dollar Value	Number of Permits	Dollar Value	Number of Permits	Dollar Value	Number of Permits	Dollar Value
Second Quarter, 1985	6,332	424,502,020	370	153,852,226	128	167,890,636	258	80,417,322	133	35,206,401
First Quarter, 1965	6,277	408,567,268	438	215,821,238	94	76,507,122	227	62,974,489	151	90,747,607
Second Quarter, 1984	5,783	383,006,339	487	338,600,771	112	78,626,521	220	54,795,378	134	52,279,204
Pima County										
Second Quarter, 1985	1,145	71,052,603	32	38,431,650	30	11,068,023	21	4,259,720	11	19,487,420
First Quarter, 1985	1,019	57,912,007	87	50,689,954	26	26,798,312	25	10,785,360	27	8,599,202
Second Quarter, 1984	1,134	65,622,789	138	60,050,408	26	13,297,945	23	2,832,202	33	11,910,507
Rest of Arizona										
Second Quarter, 1985	1,924	84,479,812	62	26,817,026	46	3,648,513	94	6,717,111	47	18,490,020
First Quarter, 1985	1,257	59,182,724	34	13,449,337	34	1,918,514	69	9,331,777	35	2,381,126
Second Quarter, 1984	1,534	75,909,428	44	10,916,989	48	5,114,991	76	8,591,830	37	13,716,414
Arizona Total										
Second Quarter, 1985	9,401	580,034,435	464	219,100,902	204	182,607,172	373	91,394,153	191	73,183,841
First Quarter, 1985	8,553	525,661,999	559	279,960,529	154	105,223,948	321	83,091,626	213	101,727,937
Second Quarter, 1984	8,551	524,538,556	669	409,568,168	186	97,039,457	319	66,219,410	204	77,906,125

[a] Five or more housing units.
[b] Office, bank, medical and professional buildings.
[c] Shopping centers and other mercantile buildings.

Source: Bureau of Business and Economic Research, College of Business, Arizona State University.

and Mesa (13 permits at $59 million). In Pima County, however, the office building sector declined, from $27 million to $11 million in the current quarter. Although activity increased in the non-metropolitan counties, it consisted primarily of small projects valued at approximately $150,000.

Relative to the first quarter of 1985, the retail sector in Maricopa County continued to expand, from $63 million to $80 million, in response to a rapidly growing population. Retail activity declined in Pima County, however, ($11 million to $4 million) and in the non-metropolitan counties ($9 million to $7 million).

Industrial

Maricopa County tends to dominate Arizona's industrial construction activity. However, in the second quarter, industrial activity decreased sharply in Maricopa County ($91 million in the first quarter to $35 million), while increasing in Pima County ($8.6 million to $19.5 million) and in the non-metropolitan counties ($2.3 million to $18 million). The decline in Maricopa County was expected because many of the first quarter permits were for construction of single, large-scale projects, and this activity level could not be sustained. The permit increase in non-metropolitan counties was led by a single permit in Casa Grande, valued at $15 million (a printing plant for the Meredith Barrow Co.).

LOOKING AHEAD

Construction activity for 1985 has been similar to the 1984 level. During the first half of 1984, $2.8 billion in construction permits were recorded, in contrast to the $2.9 billion through second quarter, 1985. Permitted activity during the last half of 1984 declined slightly, to $2.4 billion, for a record total of $5.2 billion.

Similar to the past few years, the commercial sector, especially its multifamily and office building components, led second quarter construction activity in Maricopa County. Evidence is increasing, however, that this market is rapidly becoming satisfied. Declining market demand, combined with a sluggish economy and possible tax law changes, are expected to curtail commercial activity for the remainder of 1985.

The multifamily sector, already declining, is expected to continue downward to slightly lower levels for 1985. Even though the office building sector

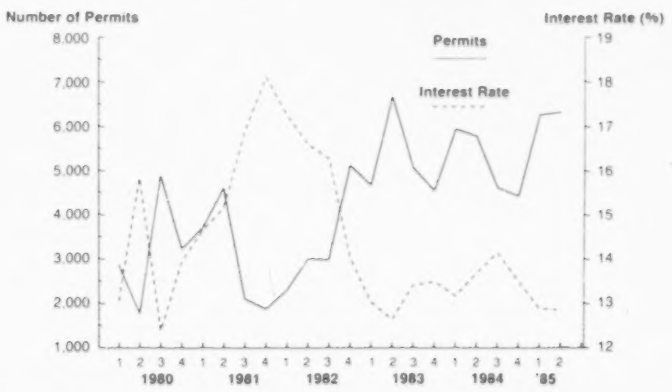
TABLE 2
ARIZONA HOUSING UNITS AUTHORIZED
Second Quarter, 1985

	One Family	Mobile Homes	Duplex	3-4 Family	5 or More	Total
APACHE COUNTY	36	13	0	0	0	49
Percent Change, Previous Year	- 5	44	0	0	—	- 30
Percent Change, Previous Quarter	24	550	0	0	—	- 3
COCHISE COUNTY	92	79	0	0	568	739
Percent Change, Previous Year	- 27	- 18	—	—	6,21	217
Percent Change, Previous Quarter	21	9	—	—	25	21
COCONINO COUNTY	219	159	12	6	382	778
Percent Change, Previous Year	- 20	24	- 33	- 50	3,719	75
Percent Change, Previous Quarter	85	194	500	—	218	164
GILA COUNTY	121	75	4	4	32	236
Percent Change, Previous Year	- 7	13	—	0	—	17
Percent Change, Previous Quarter	188	92	—	0	—	177
GRAHAM COUNTY	18	34	0	0	0	52
Percent Change, Previous Year	19	- 8	0	0	0	0
Percent Change, Previous Quarter	28	- 20	0	0	0	- 8
GREENLEE COUNTY	0	0	0	0	0	0
Percent Change, Previous Year	—	—	0	0	0	—
Percent Change, Previous Quarter	—	—	0	0	0	—
LA PAZ COUNTY	4	38	0	0	0	42
Percent Change, Previous Year	0	- 20	—	—	—	- 26
Percent Change, Previous Quarter	- 42	18	—	—	—	7
MARICOPA COUNTY	6,332	470	166	335	5,955	13,258
Percent Change, Previous Year	9	7	27	- 46	- 49	- 29
Percent Change, Previous Quarter	0	- 6	- 5	- 18	- 29	- 15
MOHAVE COUNTY	378	407	2	87	35	909
Percent Change, Previous Year	70	5	- 50	357	- 86	0
Percent Change, Previous Quarter	36	- 25	—	262	- 61	- 3
NAVAJO COUNTY	338	79	0	0	0	417
Percent Change, Previous Year	50	464	—	—	—	75
Percent Change, Previous Quarter	550	23	—	—	—	259
PIMA COUNTY	1,145	580	68	54	1,422	3,269
Percent Change, Previous Year	0	- 1	- 26	157	- 44	- 25
Percent Change, Previous Quarter	12	17	- 2	169	- 31	- 11
PINAL COUNTY	127	215	4	20	346	712
Percent Change, Previous Year	53	18	- 90	- 47	486	75
Percent Change, Previous Quarter	4	- 6	- 90	400	507	56
SANTA CRUZ COUNTY	28	22	0	0	0	50
Percent Change, Previous Year	3	450	—	—	—	61
Percent Change, Previous Quarter	100	- 53	—	—	—	- 25
YAVAPAI COUNTY	431	228	26	50	139	874
Percent Change, Previous Year	13	24	0	66	396	34
Percent Change, Previous Quarter	5	- 4	29	8	594	19
YUMA COUNTY	132	140	0	68	128	468
Percent Change, Previous Year	- 8	- 10	—	—	1,179	48
Percent Change, Previous Quarter	34	- 40	—	518	966	31
TOTAL ARIZONA	9,401	2,539	282	624	9,007	21,853
Percent Change, Previous Year	9	8	- 11	- 16	- 38	- 18
Percent Change, Previous Quarter	9	- 2	- 9	17	- 20	- 6

Note: A dash indicates that a percent change could not be calculated because at least one period had no activity.

Source: Bureau of Business and Economic Research, College of Business, Arizona State University.

FIGURE I
SINGLE FAMILY PERMITS ISSUED AND CONVENTIONAL MORTGAGE INTEREST RATES
Maricopa County, 1980-85



Source: Bureau of Business and Economic Research, College of Business, Arizona State University.

TABLE 3
ARIZONA BUILDING PERMITS
Second Quarter, 1985

	Residential*		Commercial		Industrial		Other		Total	
	Number of Permits	*Dollar Value*	*Number of Permits*	*Dollar Value*	*Number of Permits*	*Dollar Value*	*Number of Permits*	*Dollar Value*	*Number of Permits*	*Dollar Value*
APACHE COUNTY	64	1,692,480	3	12,250	0	0	7	21,358	74	1,726,088
Percent Change, Previous Year	3	33	50	– 98	0	0	– 22	– 78	1	– 23
Percent Change, Previous Qtr.	59	24	– 25	– 75	0	0	16	240	47	22
COCHISE COUNTY	261	6,019,326	20	9,124,933	1	29,624	400	4,949,561	682	20,123,444
Percent Change, Previous Year	– 24	– 29	– 31	23	– 50	– 80	– 7	156	– 15	11
Percent Change, Previous Qtr.	4	27	25	– 19	– 50	– 89	45	94	26	6
COCONINO COUNTY	579	15,879,484	37	7,117,744	7	275,600	144	1,277,583	767	24,550,411
Percent Change, Previous Year	3	– 6	– 21	67	– 12	– 62	15	3	3	5
Percent Change, Previous Qtr.	164	115	32	18	250	– 17	84	– 51	134	50
GILA COUNTY	315	6,758,014	17	1,398,617	8	362,853	58	1,576,490	398	10,095,974
Percent Change, Previous Year	0	34	325	1,203	59	33	13	111	5	64
Percent Change, Previous Qtr.	90	126	750	558	100	192	141	935	104	190
GRAHAM COUNTY	111	1,372,648	12	164,385	0	0	30	103,650	153	1,640,683
Percent Change, Previous Year	3	7	– 7	21	—	—	100	176	11	2
Percent Change, Previous Qtr.	10	13	139	135	—	—	19	402	15	22
GREENLEE COUNTY	1	2,500	0	0	0	0	0	0	1	2,500
Percent Change, Previous Year	– 85	– 97	0	0	0	0	—	—	– 88	– 97
Percent Change, Previous Qtr.	– 79	– 94	0	0	0	0	0	0	– 79	– 94
LA PAZ COUNTY	62	922,548	5	143,500	1	29,000	67	608,001	135	1,703,049
Percent Change, Previous Year	– 28	– 15	0	– 65	– 79	– 86	219	185	14	– 12
Percent Change, Previous Qtr.	– 3	– 20	– 28	– 77	0	– 10	0	65	– 2	– 21
MARICOPA COUNTY	8,945	448,551,131	913	432,127,253	133	35,206,401	8,029	168,290,351	18,020	1,084,175,136
Percent Change, Previous Year	11	11	– 21	– 19	0	– 32	– 4	49	1	– 1
Percent Change, Previous Qtr.	2	4	– 5	10	– 11	– 61	11	39	5	4
MOHAVE COUNTY	1,066	17,430,972	165	10,726,661	5	277,255	626	2,258,971	1,862	30,693,859
Percent Change, Previous Year	– 3	– 2	98	1	66	– 36	– 11	– 20	– 2	– 3
Percent Change, Previous Qtr.	– 6	2	142	31	150	182	8	– 12	4	10
NAVAJO COUNTY	575	11,831,780	13	394,838	2	52,045	103	858,746	693	13,137,409
Percent Change, Previous Year	43	32	62	– 72	0	108	110	173	50	22
Percent Change, Previous Qtr.	230	363	62	– 82	—	—	281	64	231	148
PIMA COUNTY	2,550	83,606,442	103	66,765,002	11	19,487,420	1,938	33,522,258	4,602	203,381,122
Percent Change, Previous Year	0	14	– 52	– 27	– 66	63	– 3	– 32	– 3	– 10
Percent Change, Previous Qtr.	10	28	– 33	– 35	– 59	126	12	31	9	0
PINAL COUNTY	462	7,962,654	32	8,458,322	8	15,503,374	243	1,618,714	745	33,543,064
Percent Change, Previous Year	23	59	– 11	109	100	38	– 18	– 79	4	18
Percent Change, Previous Qtr.	0	0	33	412	100	—	4	10	2	198
SANTA CRUZ COUNTY	52	1,484,405	0	0	0	0	5	14,240	57	1,498,645
Percent Change, Previous Year	33	– 23	0	0	0	0	– 58	– 99	11	– 67
Percent Change, Previous Qtr.	– 24	64	—	—	0	0	– 66	– 95	– 33	9
YAVAPAI COUNTY	863	29,548,045	51	9,696,957	5	648,025	284	2,403,140	1,203	42,296,167
Percent Change, Previous Year	9	24	13	113	150	141	– 19	– 34	1	31
Percent Change, Previous Qtr.	8	22	10	154	0	48	23	– 61	11	22
YUMA COUNTY	390	10,555,998	52	5,621,242	10	1,312,244	139	1,660,452	591	19,149,936
Percent Change, Previous Year	0	– 10	159	29	150	348	9	– 37	9	0
Percent Change, Previous Qtr.	– 11	– 2	85	42	– 16	44	– 10	25	– 6	12
TOTAL, ARIZONA	16,296	643,618,427	1,423	551,751,704	191	73,183,841	12,073	219,163,515	29,983	1,487,717,487
Percent Change, Previous Year	7	11	– 14	– 17	– 6	– 6	– 4	17	1	– 1
Percent Change, Previous Qtr.	8	11	4	3	– 10	– 28	13	33	10	7

*Includes mobile homes.

Note: A dash indicates that a percent change could not be calculated because at least one period had no activity.

Source: Bureau of Business and Economic Research, College of Business, Arizona State University.

Building Permit Classifications

Residential

New single family houses (includes townhouses)
New duplexes
New mobile homes
New carports and garages
Additions and alterations to all of above residential classifications

Commercial

New apartment buildings of three or more units
New hotels, motels and tourist cabins
New amusement and recreation buildings
New parking garages
New service stations and repair garages
New office, bank and professional buildings (retail)
Additions and alterations to all of above commercial classifications

Industrial

New industrial buildings
Additions and alterations to industrial buildings

Other

Publicly owned housing units
Churches and other religious buildings
Hospitals and other institutional buildings
Public works and utilities buildings*
Schools and other educational buildings*
Other non-residential buildings
Structures other than buildings, e.g., swimming pools, fences, billboards
Additions and alterations to all of above "other" classifications

*Classified as commercial if privately owned

set a record during the second quarter, this level of activity cannot be sustained, given the increasing vacancy rates and announcements of delayed and/or scaled-down projects. The only element of the commercial sector that could remain near the current activity level is the retail sector, due to the existing need for new space in the growing areas of the state. Increasing concern about the strength of the economy and the growth of existing firms probably will result in the industrial sector remaining at levels comparable to those of the second quarter.

Although interest rates declined in the residential sector, the response was not as strong as expected. Since the end of the second quarter, interest rates have increased slightly, and announcements indicate that qualification standards for mortgages will be raised. Because the Federal Reserve is not expected to further relax credit policy, interest rates should not decline by the end of 1985. The recent decline in interest rates appears to have had the effect of prolonging the residential market, not expanding it.

With the possible exception of the retail sector, no major sector of the construction industry should exceed the levels of the first half, 1985. Hence, construction activity probably will decline in the latter half of 1985 to levels comparable to the record year of 1984. As the metropolitan markets are satisfied, activity could increase slightly in other growing areas of the state. Fundamentally, the remainder of the year should bring good, but unspectacular, levels of construction activity.

— Jay Q. Butler

Dr. Butler is Associate Professor of Real Estate in the College of Business, Arizona State University. He also serves as Director of the Arizona Real Estate Institute.

TABLE 4
REPORTING UNITS WITH GREATEST TOTAL VALUE OF BUILDING PERMITS
Second Quarter, 1985

Reporting Unit	Value (In Millions)
Phoenix	$383.7
Mesa	208.8
Scottsdale	147.7
Tucson	101.5
Unincorporated Pima County	100.3
Chandler	82.6
Unincorporated Maricopa County	82.3
Tempe	63.9
Glendale	51.6
Gilbert	34.3
Unincorporated Yavapai County	25.8
Casa Grande	24.6

Source: Bureau of Business and Economic Research, College of Business, Arizona State University

Arizona Personal Income Surges in '84

Personal income in Arizona rose 13.3 percent during 1984, the third fastest rate among the 50 states, according to the U.S. Bureau of Economic Analysis (BEA). The BEA projects more rapid personal income growth in Arizona than in any other state between 1983 and 2000; the state total should grow 68 percent faster than the national total.

Arizona personal income reached $36.2 billion in 1984, 1.2 percent of the nation's $3 trillion personal income total. Earnings, primarily from wages and salaries, accounted for nearly two-thirds of Arizona's total. Dividends, interest and rent produced another 20 percent, and the remainder derived from transfer payments, such as social security benefits and unemployment insurance (see Figure I).

Dividing total personal income by population paints an entirely different picture. Instead of rising at nearly the most rapid rate in the nation, per capita personal income has grown at approximately the same rate as the national average in recent years. At $11,841 in 1984, Arizona per capita personal income remained 7 percent less than the national average, ranking Arizona only 30th among the 50 states. Nothing suggests that per capita personal income growth will accelerate past the national average in coming years.

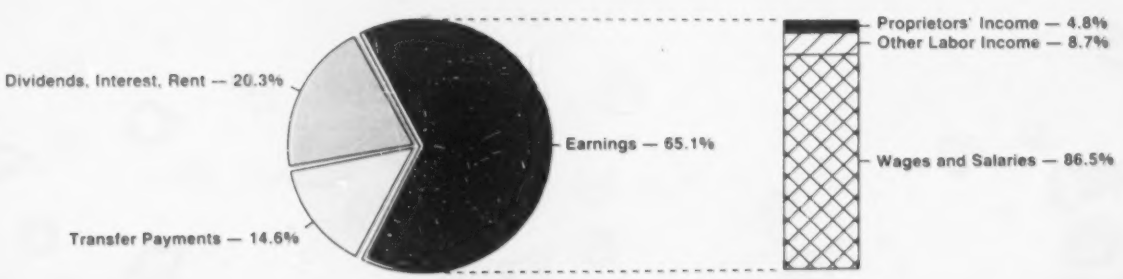
Several factors help to explain Arizona's relatively low per capita personal income:

- It has always been less than the national average.
- The cost of living in Arizona is less than in many states.
- A relatively large proportion of Arizona's jobs are in low-paying industries and occupations, such as clerks in the services industry.
- With strong in-migration of workers, employers do not need to disproportionately raise wages and salaries to attract employees.

Thus, the state's rapid personal income growth is due almost entirely to the fast-growing population. Individuals are not likely to see their incomes rise nearly as quickly.

— Tom R. Rex
Research Manager

FIGURE I
DERIVATION OF ARIZONA PERSONAL INCOME
1984


Dividends, Interest, Rent — 20.3%
Earnings — 65.1%
Transfer Payments — 14.6%
Proprietors' Income — 4.8%
Other Labor Income — 8.7%
Wages and Salaries — 86.5%

Source: U.S. Department of Commerce, Bureau of Economic Analysis

Purchasing Indicators Rebound in August

In August, the Arizona economy enjoyed its best overall performance since March. All indicators were positive, for the first time in the last four months. Both new orders received from customers and production picked up speed, and employment registered its largest hike in almost a year.

While the August increases provided an encouraging sign for the balance of 1985, they may have marked an end-of-the-summer, seasonal rebound. Nevertheless, the employment, new order, production and purchase commitment numbers revealed underlying strength in the Arizona economy. The delivery time indicator confirmed that vendor order books grew in August. Also, organizations again were building inventory, which will add further momentum. Prices remained relatively stable — a comforting sign to business decision makers.

While the economic growth rate likely will remain moderate over the balance of the year, all factors indicate that further expansion will occur during the second half and that the probability of an economic downturn is small.

Table 1 presents the results of the August survey of Arizona purchasing managers.

PRICES

Prices paid for major purchased items continued to rise, but at a slightly lower rate than in June and July. The rate also was lower than in the first few months of the year and was substantially less than that for all but two months of both 1983 and 1984. Although inflationary pressures still are present, Arizona continues to enjoy a year of relatively stable prices, a key factor in moving the expansion well into its third year.

DELIVERY TIME

Delivery time on shipments from vendors recorded its largest stretchout to date in 1985, and the rate was substantially greater than in any of the previous seven months. Evidently, vendor order books recovered a good bit in August.

INVENTORIES

Inventory levels of purchased materials registered its first gain since April and the second largest increase of the last 12 months (only April's hike was greater). The turnaround in inventory policy resulted from higher levels of business activity. If a steady growth in stock-building now begins, it will have a positive effect on the Arizona economy in months to come.

NEW ORDERS

New orders received by Arizona firms enjoyed the greatest growth since March. The August net increase was approximately three times more than in July.

PRODUCTION

Production also accelerated in August, registering its largest jump since May. While the August net production increase still was well under gains recorded in the early part of 1985, it shows the economy has a good deal of vitality and staying power.

EMPLOYMENT

Employment grew at a rate three times greater than in July and the highest in almost 12 months (since September 1984). Thus, the last three-month trend of very moderate employment increases appears to have been reversed, at least for the present.

PURCHASES

Purchases of materials and supplies by Arizona firms advanced at the highest rate since April. The August increase was larger than in all but three months to date in 1985. This buildup of purchases is a reaction to higher new order and production rates and will further stimulate overall economic performance.

— Harold Fearon

Dr. Fearon is chairman of the Department of Purchasing, Transportation, Operations in the ASU College of Business and is the National Association of Purchasing Management Professor.

Arizona Purchasing Survey

Now in its 23rd year of monthly reporting, Dr. Harold Fearon's survey of Arizona business conditions utilizes data from a questionnaire sent to members of the purchasing management associations of Arizona and southern Arizona. It asks them to indicate the direction of activity — higher, unchanged, or lower — of seven key measures of economic activity in the month just ended. These purchasing managers deal daily with supply, demand, and price factors in the marketplace; their aggregate readings have accurately charted the state's economic course for two decades, providing timely data on turning points.

TABLE 1
AUGUST PURCHASING SURVEY

	Percent of Purchasing Managers Indicating Each Response (August compared to July)		
Key Indicators	*Higher*	*Same*	*Lower*
Prices paid for major commodities	19	69	12
Delivery time from vendors	24	64	12
Purchased materials inventory level	30	48	22
New orders received	41	41	18
Production	34	48	18
Employment	29	56	15
Purchases	43	35	22

Source: Purchasing Management Association of Arizona and the Purchasing Management Association of Southern Arizona.

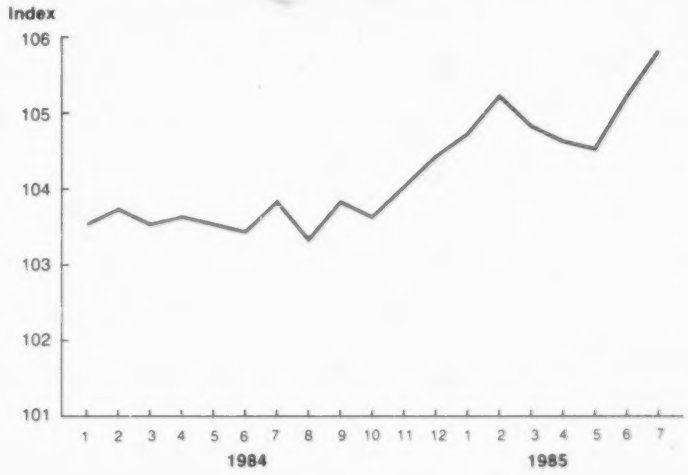
Arizona Leading Index Gains Momentum in July

The Arizona Index of Leading Economic Indicators rose strongly in July for the second consecutive month, following three straight monthly declines during the spring (see Figure I). The 0.6 percent gain in July, on the heels of a 0.7 percent advance in June, pushed the index to a new high of 105.8 (1977 = 100).

Increases in the index were not as widespread in July as in June: The diffusion index – the percentage of rising components – dropped from 70 percent to 50 percent. The largest gain since late 1982 in the value of residential building permits caused most of the July advance. This surge in residential construction resulted from the lowering of interest rates in late May.

Another sizable gain in the national money supply (M2) – the third in a row – was nearly offset by declines in most of the other components. For most components, the increase or decrease in July only offset the change of the prior month (see Table 1), a continuation of the up-and-down pattern of the last 18 months.

FIGURE I
ARIZONA INDEX OF LEADING ECONOMIC INDICATORS



Source: Bureau of Business and Economic Research, College of Business, Arizona State University

OUTLOOK

Thus, despite another large gain in the July index, the interpretation remains that the Arizona economy is likely to continue its slow, erratic growth. The same scenario applies nationally, with the July leading index rising moderately for the second straight month. However, the gains have not been so large, widespread or lengthy that they signal an improvement from the growth recession. A more detailed outlook is included in the economic forecast article (page 1).

— **Tom R. Rex**
Research Manager

TABLE 1
NET CONTRIBUTION OF INDIVIDUAL COMPONENTS TO THE ARIZONA INDEX OF LEADING ECONOMIC INDICATORS

	Net Contribution*			
	April	*May*	*June*	*July*
Delivery Time*	.04	– .05	.05	– .06
Inventory Levels*	.05	– .15	.10	.03
New Orders*	– .06	– .01	.04	– .04
Production*	.02	– .05	– .01	.01
Employment*	.04	– .02	.02	– .07
Residential Building Permits	– .09	– .02	– .08	.60
Unemployment Insurance Claims	– .17	.01	.15	– .14
Average Workweek, Manufacturing	.12	– .19	– .04[r]	.06
Money Supply	– .27	.29	.54[r]	.31
Change in Sensitive Materials Prices	.08	.10	.02	– .05
OVERALL INDEX	– .24	– .09	.79[r]	.65

[r]Revised

*The net contribution of each component is calculated by multiplying the monthly change in its index by its relative importance.

*Based on indicators from the purchasing management associations of Arizona and southern Arizona.

Source: Bureau of Business and Economic Research, College of Business, Arizona State University.

ARIZONA ECONOMIC INDICATORS

	Month or Quarter	Value	Percent Change from Previous Period	Percent Change from Year Ago	Year-to-Date Value	Year-to-Date Percent Change from Year Ago
GROSS STATE PRODUCT (In Billions of Dollars, at Annual Rate)						
Arizona - Current Dollars	1st Qtr.	43.948	11.1	10.5	NA	NA
Arizona - 1972 Dollars	1st Qtr.	21.010	4.5	7.5	NA	NA
CONSUMER PRICE INDEX (1977 = 100)						
Metropolitan Phoenix	2nd Qtr.	190.8	1.6	6.0	NA	NA
INDEX OF LEADING ECONOMIC INDICATORS (1977 = 100)						
Arizona	July	105.8	0.6	1.9	NA	NA
BUILDING PERMITS (Total Dollar Value in Thousands)						
Maricopa County	June	366,107	7	- 15	2,118,541	2
Pima County	June	59,264	- 18	21	405,805	- 4
Balance of State	June	63,841	11	5	341,165	- 2
Arizona	June	489,212	4	- 10	2,865,511	1
TOTAL HOUSING UNITS AUTHORIZED						
Maricopa County	June	4,847	16	- 39	29,034	- 18
Pima County	June	962	- 13	- 23	6,957	- 23
Balance of State	June	1,844	31	75	9,125	28
Arizona	June	7,653	14	- 26	45,116	- 12
HOME SALES						
Maricopa County - Number	July	5,847	20	0	31,553	- 8
Maricopa County - Median Price	July	75,000	1.4	3.2	72,725	3.1
ELECTRICAL POWER SALES (In Millions of Kilowatt Hours)						
Arizona	July	3,921.9	13.2	7.9	20,805.3	7.6

NA = Not Applicable.

Source: Bureau of Business and Economic Research, College of Business, Arizona State University.

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